# EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO)

# EC(H4DO)

- 1. General Description
- 2. Front Catalytic Converter
- 3. Rear Catalytic Converter
- 4. Canister
- 5. Purge Control Solenoid Valve
- 6. Fuel Level Sensor
- 7. Fuel Sub Level Sensor
- 8. Drain Filter
- 9. Leak Check Valve Assembly
- 10. PCV Connector
- 11. PCV Hose
- 12. PCV Valve

#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > General Description

#### **CAUTION**

- When performing service operation, refer to "Repair Contents" in "General Description". <a href="Repair Contents">Repair Contents</a>. <a href="Repair Contents">REPAIR CONTENTS>Repair Contents</a>.
- Prior to starting work, pay special attention to the following:
  - 1. Always wear work clothes, a work cap, and protective shoes. Additionally, wear a helmet, protective goggles, etc. if necessary.
  - 2. Protect the vehicle using a seat cover, fender cover, etc.
  - 3. Prepare the service tools, clean cloth, containers to catch grease and oil, etc.
- Prevent scattering of grease and oil. If it scatters, wipe it off immediately to prevent it from penetrating the floor or flowing out, to protect the environmental.
- If the grease and oil is spilt over the engine, exhaust pipe or the under cover, completely wipe it off to avoid emission of smoke or causing a fire.
- Vehicle components are extremely hot immediately after driving. Be wary of receiving burns from heated parts.
- When performing a repair, identify the cause of trouble and avoid unnecessary work.
- Before disconnecting connectors of sensors or units, be sure to disconnect the ground terminal from the battery sensor.
- Always use the jack-up point when the lifting device, shop jacks or rigid racks are used to support the vehicle.
- Before starting works, remove dirt and corrosion around the target area.
- Keep the removed parts in order and protect them from dust and dirt.
- All removed parts, if to be reused, should be reinstalled in the original positions with attention to the correct directions, etc.
- For the parts except for the non-reusable parts, replace then with new parts if necessary.
- Be sure to tighten bolts and nuts to the specified torque.

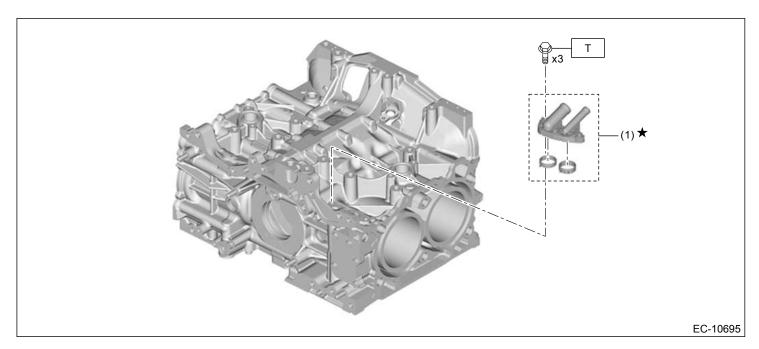
EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > General Description

#### COMPONENT

### 1. CANISTER, PURGE CONTROL SOLENOID VALVE, DRAIN FILTER AND LEAK CHECK VALVE ASSEMBLY

For components of canister, purge control solenoid valve, drain filter and leak check valve assembly, refer to FU (H4DO). Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>General Description>COMPONENT.

#### 2. PCV SYSTEM 1

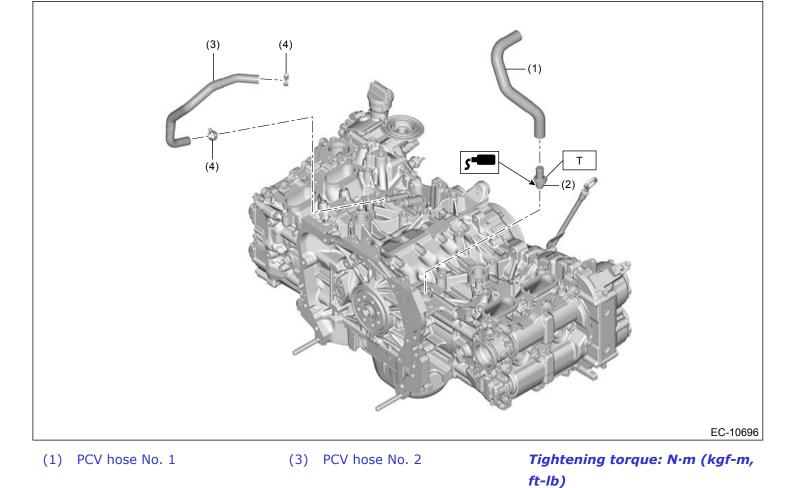


(1) PCV connector

Tightening torque: N⋅m (kgf-m, ft-lb)

T: 6.4 (0.7, 4.7)

#### 3. PCV SYSTEM 2



EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > General Description PREPARATION TOOL

T: 23 (2.3, 17.0)

(4) Clip

#### 1. SUBARU SPECIAL TOOL

(2) PCV valve

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
		SUBARU SELECT	Used for setting of each function and
SSM 4		MONITOR 4	<ul> <li>troubleshooting for electrical system.</li> <li>Note: <ul> <li>For detailed operation</li> <li>procedures, refer to "Help" of application.</li> </ul> </li> <li>Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).</li> </ul>

#### 2. OTHER

DEMADKS
REPIARAS

Circuit tester	Used for measuring resistance, voltage and	l
	current.	l

## EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Front Catalytic Converter

#### **REMOVAL**

The front catalytic converter is integrated into the front exhaust pipe; therefore, refer to "Front Exhaust Pipe" for the removal procedure. Ref. to EXHAUST(H4DO)>Front Exhaust Pipe>REMOVAL.

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Front Catalytic Converter

#### **INSTALLATION**

The front catalytic converter is integrated into the front exhaust pipe; therefore, refer to "Front Exhaust Pipe" for the installation procedure. Ref. to EXHAUST(H4DO)>Front Exhaust Pipe>INSTALLATION.

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Front Catalytic Converter

#### INSPECTION

The front catalytic converter is integrated into the front exhaust pipe; therefore, refer to "Front Exhaust Pipe" for the inspection procedure. Ref. to EXHAUST(H4DO)>Front Exhaust Pipe>INSPECTION.

### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Rear Catalytic Converter

#### **REMOVAL**

The rear catalytic converter is integrated into the center exhaust pipe; therefore, refer to "Center Exhaust Pipe" for the removal procedure. Ref. to EXHAUST(H4DO)>Center Exhaust Pipe>REMOVAL.

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Rear Catalytic Converter

#### **INSTALLATION**

The rear catalytic converter is integrated into the center exhaust pipe; therefore, refer to "Center Exhaust Pipe" for the installation procedure. Ref. to EXHAUST(H4DO)>Center Exhaust Pipe>INSTALLATION.

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Rear Catalytic Converter

#### **INSPECTION**

The rear catalytic converter is integrated into the center exhaust pipe. Refer to "Center Exhaust Pipe" for inspection procedures. Ref. to EXHAUST(H4DO)>Center Exhaust Pipe>INSPECTION.

#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Canister

#### **REMOVAL**



1. Remove the rear differential. Ref. to DIFFERENTIALS>Rear Differential>REMOVAL.

#### Note:

This operation procedure would be possible by simply lowering the rear differential to the position that the work is possible. In that case, it is not necessary to pull out the drive shaft from the rear differential.

2. Disconnect the drain tube (A), vent tube (B) and purge tube (C).

#### **Drain tube:**

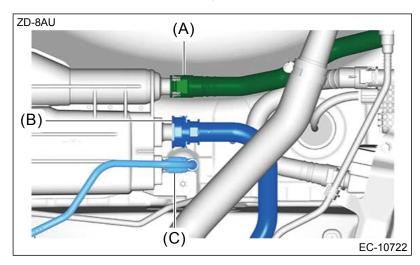
Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>REMOVAL > QUICK CONNECTOR DISCONNECTION (TYPE G).

#### Vent tube:

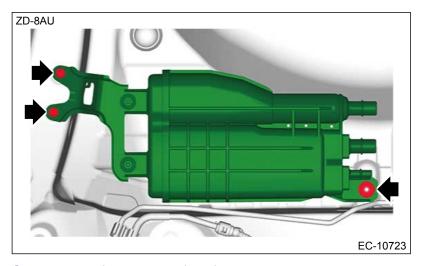
Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>REMOVAL > QUICK CONNECTOR DISCONNECTION (TYPE H).

#### **Purge tube:**

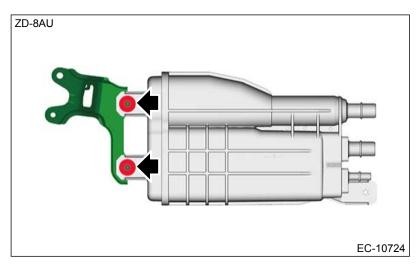
Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>REMOVAL > QUICK CONNECTOR DISCONNECTION (TYPE E).



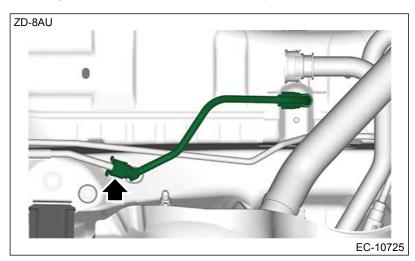
3. Remove the canister.



4. Remove the canister bracket LH.



**5.** Remove the purge tube. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>REMOVAL > QUICK CONNECTOR DISCONNECTION (TYPE E).

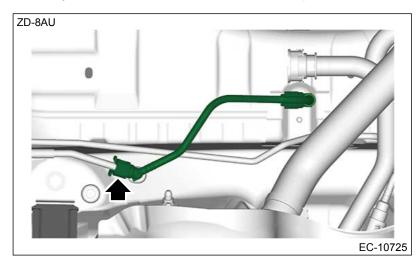


#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Canister

#### **INSTALLATION**

1. Connect the purge tube. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and

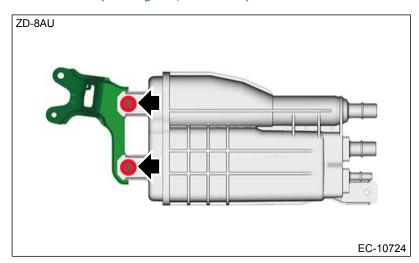
#### <u>Evaporation Lines>INSTALLATION > QUICK CONNECTION (TYPE E).</u>



2. Install the canister bracket LH.

#### **Tightening torque:**

8 N·m (0.8 kgf-m, 5.9 ft-lb)

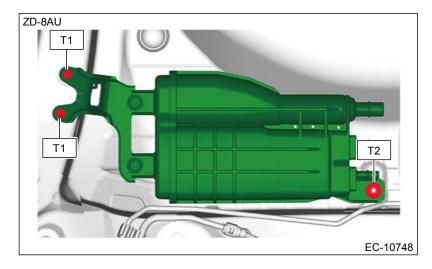


3. Install the canister.

#### **Tightening torque:**

T1: 7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

T2: 8 N·m (0.8 kgf-m, 5.9 ft-lb)



**4.** Connect the purge tube (C), vent tube (B), and drain tube (A).

#### **Purge tube:**

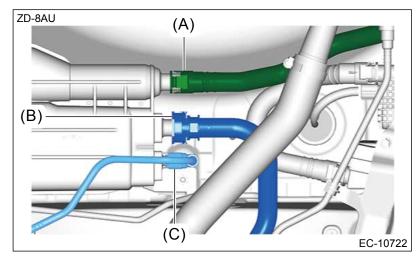
Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>INSTALLATION > QUICK CONNECTOR CONNECTION (TYPE E).

#### Vent tube:

Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>INSTALLATION > QUICK CONNECTOR CONNECTION (TYPE H).

#### **Drain tube:**

Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>INSTALLATION > QUICK CONNECTOR CONNECTION (TYPE G).



5. Install the rear differential. <a>Ref. to DIFFERENTIALS>Rear Differential>INSTALLATION</a>.

#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Canister

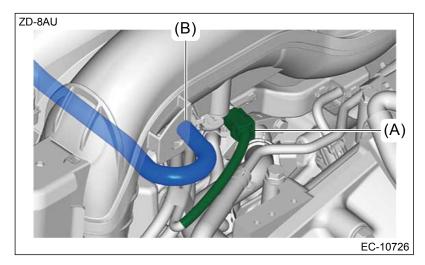
#### **INSPECTION**

- 1. Check that the canister has no deformation, cracks or other damages.
- 2. Check that the tube has no cracks, clogging, damage or loose part.

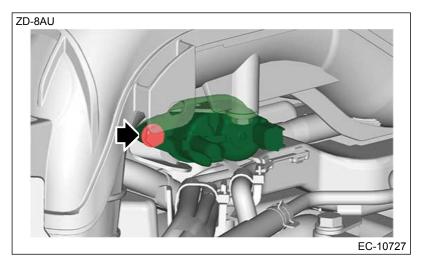
## EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Purge Control Solenoid Valve

#### **REMOVAL**

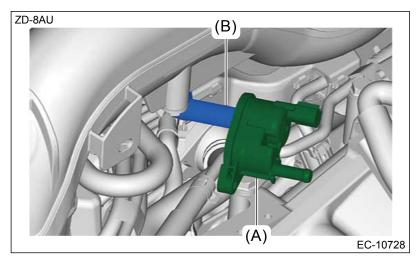
- 1. Disconnect the ground terminal from battery sensor. <a> Ref. to REPAIR CONTENTS>NOTE > BATTERY.</a>
- 2. Remove the brake vacuum hose & pipe. Ref. to BRAKE>Brake Vacuum Pump>REMOVAL > BRAKE VACUUM HOSE & PIPE.
- **3.** Disconnect the connector (A) and vacuum hose (B).



**4.** Remove the bolt securing the purge control solenoid valve.



5. Disconnect the vacuum hose (B) from purge control solenoid valve (A).

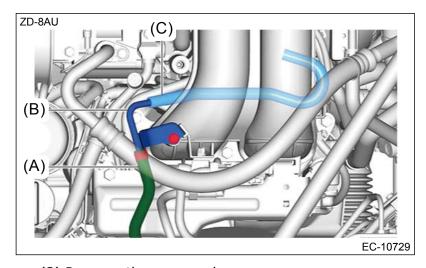


**6.** Remove the vacuum pipe.

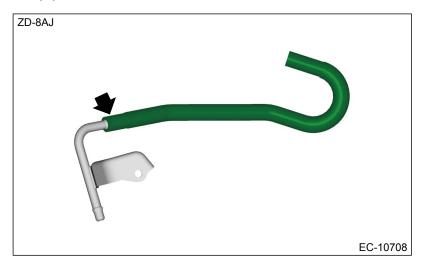
#### Note:

Perform this procedure only when required.

- (1) Disconnect the evaporation hose (A).
- (2) Remove the vacuum pipe (B) and vacuum hose (C) as a unit.



(3) Remove the vacuum hose.



#### Solenoid Valve

#### **INSTALLATION**

1. Connect the vacuum hose to the vacuum pipe and install to the intake manifold assembly.

#### **Tightening torque:**

- 2. Connect the evaporation hose to the vacuum pipe.
- **3.** Connect the vacuum hose to the purge control solenoid valve.
- 4. Install the purge control solenoid valve to the intake manifold assembly.

#### **Tightening torque:**

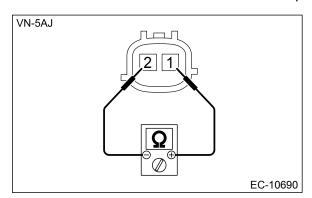
- 5. Connect the vacuum hose and connector to the purge control solenoid valve.
- **6.** Install the brake vacuum hose & pipe. Ref. to BRAKE>Brake Vacuum Pump>INSTALLATION > BRAKE VACUUM HOSE & PIPE.
- 7. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Purge Control Solenoid Valve

#### **INSPECTION**

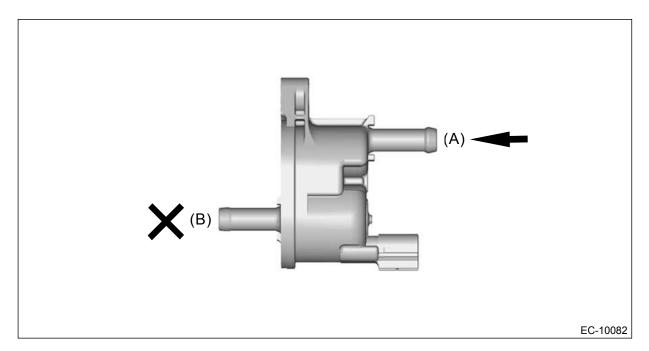
#### 1. UNIT INSPECTION

- 1. Check that the purge control solenoid valve has no deformation, cracks or other damages.
- 2. Measure the resistance between the purge control solenoid valve terminals.

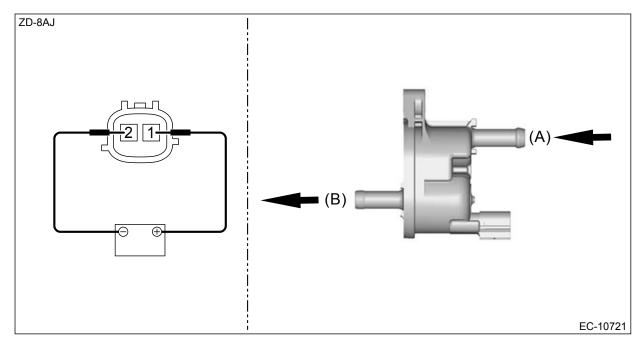


Terminal No.	Standard
1 — 2	23 — 26 Ω (20°C (when 68°F))

**3.** Check that air does not come out from (B) when air is blown into (A).



**4.** Connect the battery positive terminal to the terminal No. 1 and the battery negative terminal to the terminal No. 2. Check that air is discharged from (B), when supplying air to (A).

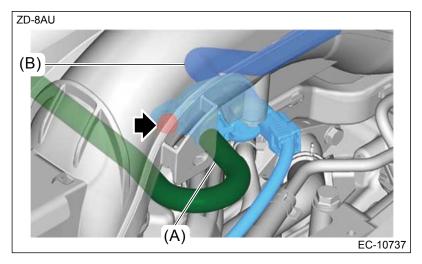


#### 2. ON THE VEHICLE INSPECTION

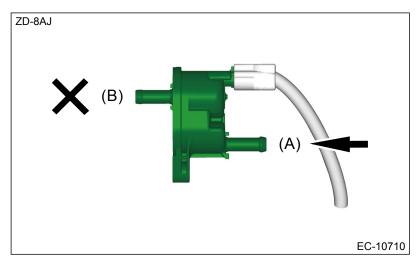
- 1. Remove the brake vacuum hose & pipe. Ref. to BRAKE>Brake Vacuum Pump>REMOVAL > BRAKE VACUUM HOSE & PIPE.
- 2. Disconnect the vacuum hose (A).
- **3.** Remove the bolt securing the purge control solenoid valve, and disconnect the vacuum hose (B).

#### Caution:

Do not disconnect the connector from the purge control solenoid valve.



4. Check that air does not come out from (B) when air is blown into (A).

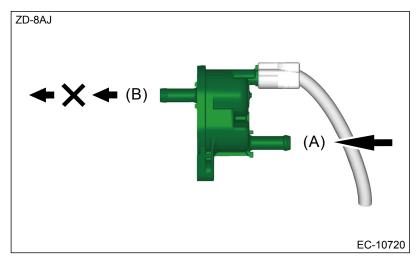


- 5. Connect the Subaru Select Monitor to the vehicle.
- **6.** Turn the ignition switch to ON. (Engine OFF)
- 7. Perform "CPC Solenoid" in "Active Test". Ref. to ENGINE (DIAGNOSTICS)(H4DO)>Active Test.

  Note:

  Turn ON and OFF the purge control solenoid valve repeatedly during the active test.

8. Check that air comes out from (B), then stops coming out, and this cycle repeats while air is being blown into (A).



**9.** After inspection, install the related parts in the reverse order of removal.

#### 3. OTHER INSPECTIONS

Check the evaporation hose and vacuum hose for cracks, clogging, damage or looseness.

## EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Fuel Level Sensor REMOVAL

For removal procedures, refer to the "FU(H4DO)" section. Ref. to FUEL INJECTION (FUEL SYSTEMS) (H4DO)>Fuel Level Sensor>REMOVAL > FUEL PUMP SIDE.

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Fuel Level Sensor INSTALLATION

For installation procedures, refer to the "FU(H4DO)" section. Ref. to FUEL INJECTION (FUEL SYSTEMS) (H4DO)>Fuel Level Sensor>INSTALLATION > FUEL PUMP SIDE.

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Fuel Level Sensor INSPECTION

For inspection procedures, refer to the "FU(H4DO)" section. Ref. to FUEL INJECTION (FUEL SYSTEMS) (H4DO)>Fuel Level Sensor>INSPECTION > FUEL PUMP SIDE.

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Fuel Sub Level Sensor

#### **REMOVAL**

For removal procedures, refer to the "FU(H4DO)" section. Ref. to FUEL INJECTION (FUEL SYSTEMS) (H4DO)>Fuel Level Sensor>REMOVAL > FUEL SUB LEVEL SENSOR SIDE.

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Fuel Sub Level Sensor

#### **INSTALLATION**

For installation procedures, refer to the "FU(H4DO)" section. Ref. to FUEL INJECTION (FUEL SYSTEMS) (H4DO)>Fuel Level Sensor>INSTALLATION > FUEL SUB LEVEL SENSOR SIDE.

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Fuel Sub Level Sensor

#### INSPECTION

For inspection procedures, refer to the "FU(H4DO)" section. Ref. to FUEL INJECTION (FUEL SYSTEMS) (H4DO)>Fuel Level Sensor>INSPECTION > FUEL SUB LEVEL SENSOR SIDE.

## EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Drain Filter REMOVAL

Refer to "Leak Check Valve Assembly" for removal procedure for the drain filter. Ref. to EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO)>Leak Check Valve Assembly>REMOVAL.

#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Drain Filter

#### **INSTALLATION**

Refer to "Leak Check Valve Assembly" for installation procedure for the drain filter. Ref. to EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO)>Leak Check Valve Assembly>INSTALLATION.

#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Drain Filter

#### INSPECTION

- 1. Check that the drain filter and drain tube have no deformation, cracks or other damages.
- 2. Check that no foreign substances are clogged in the drain filter.

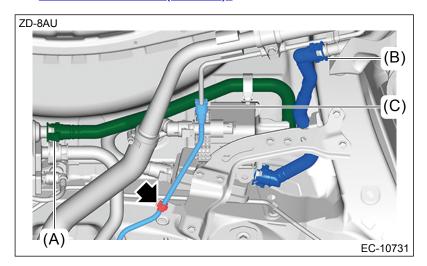
## EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Leak Check Valve Assembly

#### **REMOVAL**

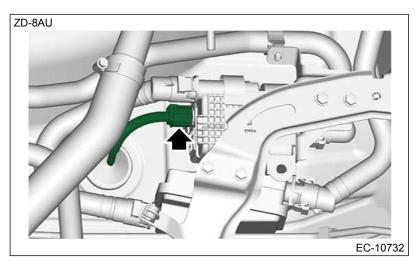


- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the rear suspension assembly. Ref. to REAR SUSPENSION>Sub Frame>REMOVAL.
- 3. Disconnect drain tube (A) and drain tube (B). Ref. to FUEL INJECTION (FUEL SYSTEMS)

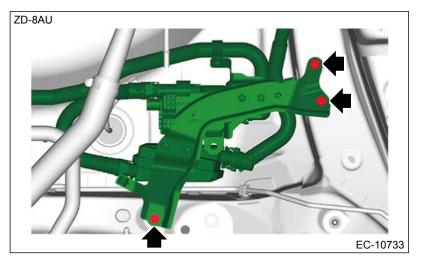
  (H4DO)>Fuel Delivery and Evaporation Lines>REMOVAL > QUICK CONNECTOR DISCONNECTION
  (TYPE G).
- **4.** Disconnect the circulate tube (C) and remove from the tube clamp. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>REMOVAL > QUICK CONNECTOR DISCONNECTION (TYPE D).



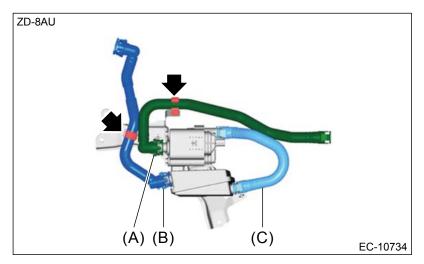
Disconnect the connector from the leak check valve assembly.



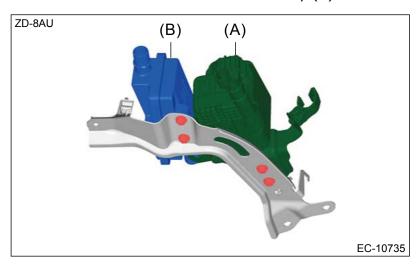
**6.** Remove the bolts which hold the bracket and remove the drain tube, leak check valve assembly and drain filter from the vehicle as a unit.



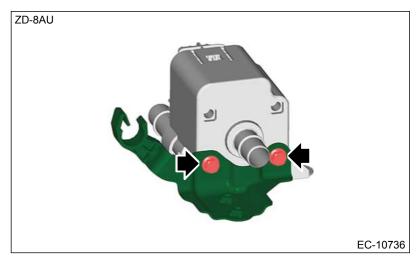
- 7. Disconnect the drain tube (A) and drain tube (B) and remove from the tube clamp. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>REMOVAL > QUICK CONNECTOR DISCONNECTION (TYPE G).
- **8.** Disconnect the drain tube (C). Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>REMOVAL > QUICK CONNECTOR DISCONNECTION (TYPE G).



**9.** Remove the leak check valve assembly (A) and drain filter (B) from the bracket.



10. Remove the leak check valve assembly bracket.



11. Remove each tube clamp from the bracket and the leak check valve assembly.

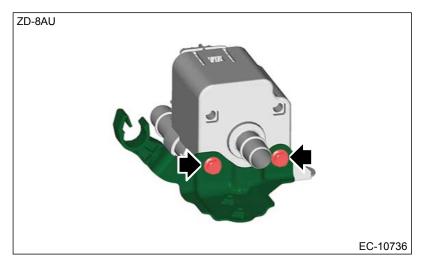
## EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Leak Check Valve Assembly

#### **INSTALLATION**

- 1. Install each tube clamp to the bracket and the leak check valve assembly.
- 2. Install the leak check valve assembly bracket.

#### **Tightening torque:**

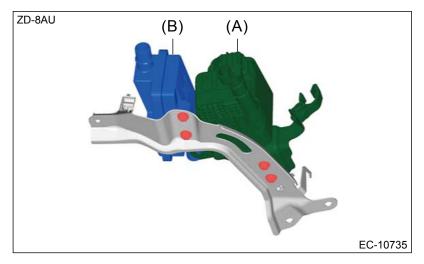
8 N·m (0.8 kgf-m, 5.9 ft-lb)



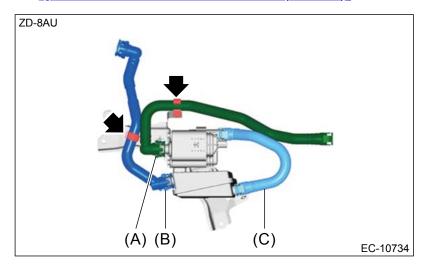
3. Install the drain filter (B) and the leak check valve assembly (A) to the bracket.

#### **Tightening torque:**

8 N·m (0.8 kgf-m, 5.9 ft-lb)



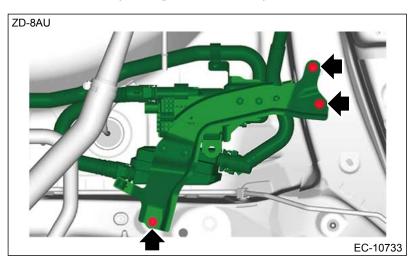
**4.** Connect the drain tube (C), drain tube (B) and drain tube (A) and install to the tube clamp. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>INSTALLATION > QUICK CONNECTOR CONNECTION (TYPE G).



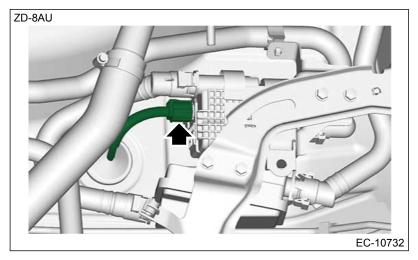
**5.** Set the drain tube, leak check valve assembly and drain filter to the vehicle as a unit and install the bolt which holds the bracket.

#### **Tightening torque:**

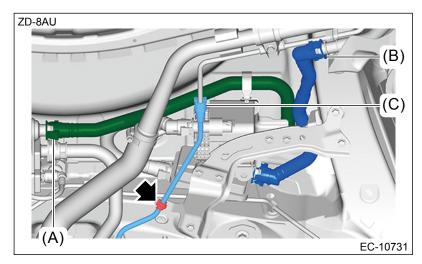
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)



6. Connect the connector to the leak check valve assembly.



- 7. Connect the circulate tube (C) and install to the tube clamp. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>INSTALLATION > QUICK CONNECTOR CONNECTION (TYPE D).
- 8. Connect drain tube (B) and drain tube (A). Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Fuel Delivery and Evaporation Lines>INSTALLATION > QUICK CONNECTOR CONNECTION (TYPE G).



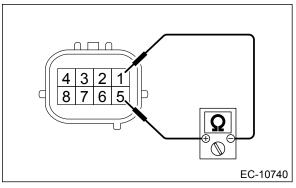
**9.** Install the rear suspension assembly. <u>Ref. to REAR SUSPENSION>Sub Frame>INSTALLATION.</u> **10.** Connect the ground terminal to battery sensor. <u>Ref. to REPAIR CONTENTS>NOTE > BATTERY.</u>

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > Leak Check Valve Assembly

#### **INSPECTION**

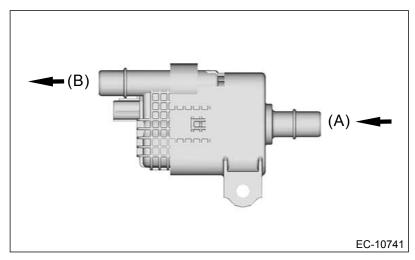
#### 1. CHECK SWITCHING VALVE

**1.** Check the resistance between switching valve terminals.



Terminal No.	Standard
1-5	25 — 30 Ω (20°C (when 68°F))
	27 — 35 Ω (60°C (when 140°F))

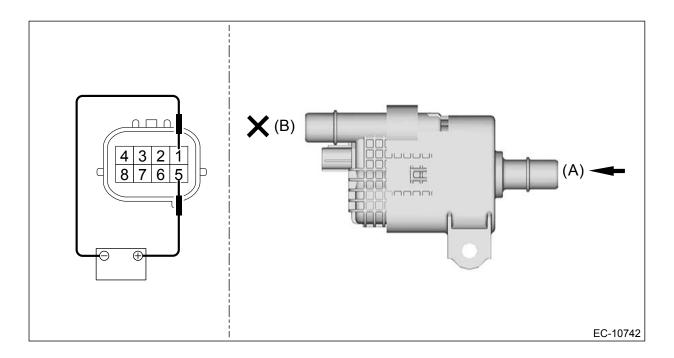
**2.** Check that air is discharged from (B) when air is blown into (A).



**3.** Connect the battery positive terminal to the terminal No. 5 and the battery negative terminal to the terminal No. 1. Check that air is not discharged from (B), when supplying air to (A).

#### Note:

The purpose of this inspection is to check the valve movement, and it would be success if a large change of flow can be checked resulting from valve opening/closing. Therefore, it does not indicate a malfunction if a small amount of flow from (B) is detected when the valve is closed.

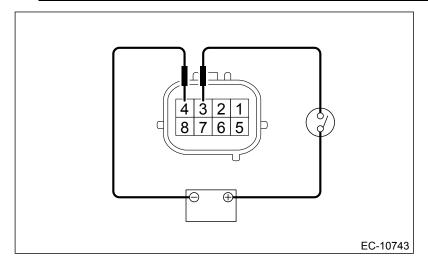


#### 2. CHECK VACUUM PUMP

1. Connect the battery positive terminal to terminal No. 3 and the battery negative terminal to terminal No. 4, and inspect the vacuum pump operation.

#### Caution:

Do not operate the vacuum pump for 5 minutes or more.

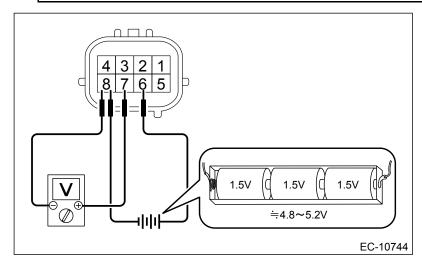


#### 3. CHECK PRESSURE SENSOR

1. Using new dry-cell batteries, connect the battery positive terminal to terminal No. 6 and the battery negative terminal to terminal No. 8, and connect the circuit tester positive terminal to terminal No. 7 and the circuit tester negative terminal to terminal No. 8.

#### Note:

- Using a circuit tester, check that the initial voltage of each dry-cell battery is 1.6 V or more. And also check that the voltage of three batteries in series is between 4.8-5.2 V.
- For power supply, 5 V DC constant voltage power source can also be used.



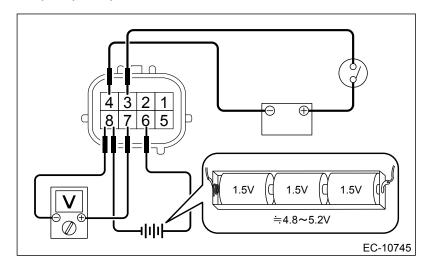
**2.** Check the voltage at a normal atmospheric pressure.

#### Note:

The atmospheric pressure at higher altitude is lower than normal. Therefore, the voltage is lower than the standard value.

Terminal No.	Standard
7 (+) — 8 (–)	Approx. 3.5 V (when 25°C (77°F))

**3.** Connect the battery positive terminal to terminal No. 3 and the battery negative terminal to terminal No. 4, and check that there is a voltage drop from the voltage measured in step 2. when the vacuum pump is operated.



#### 4. OTHER INSPECTIONS

Check that the leak check valve assembly has no deformation, cracks or other damages.

#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > PCV Connector

#### **REMOVAL**



- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- **2.** Drain engine coolant. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > DRAINING OF ENGINE COOLANT.
- **3.** Perform the steps below to remove the air intake boot, and place it aside so that it does not interfere with the work.

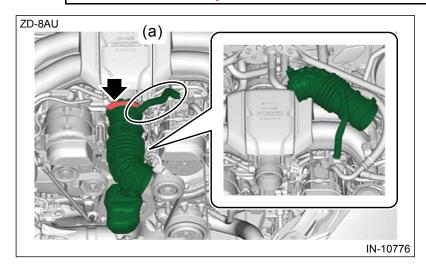
#### Caution:

Do not remove the PCV hose No. 2 (a).

- (1) Remove the air cleaner case. Ref. to INTAKE (INDUCTION)(H4DO)>Air Cleaner Case>REMOVAL.
- (2) Loosen the clamp, remove the air intake boot, and place it aside so that it does not interfere with the work.

#### Caution:

Be careful not to pull out the PCV hose No. 2 (a).

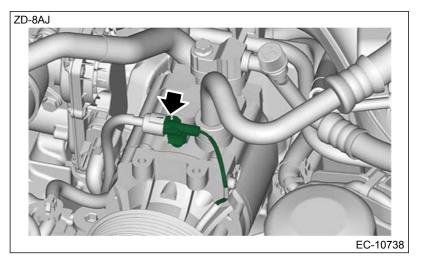


**4.** Move the A/C compressor aside so that it does not interfere with the work.

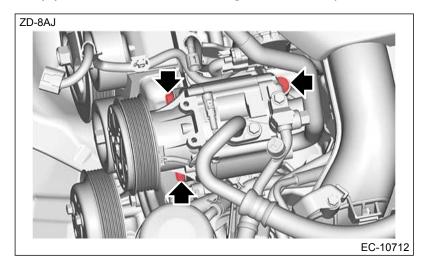
#### Note:

This procedure is required to remove the PCV connector.

- (1) Remove the V-belts. Ref. to MECHANICAL(H4DO)>V-belt>REMOVAL > V-BELT.
- (2) Disconnect the connector.



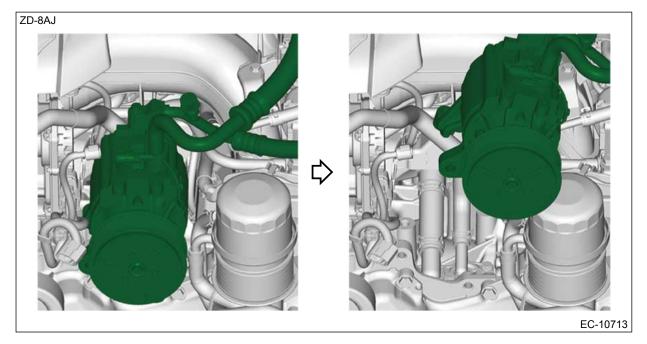
(3) Remove the bolt securing the A/C compressor.



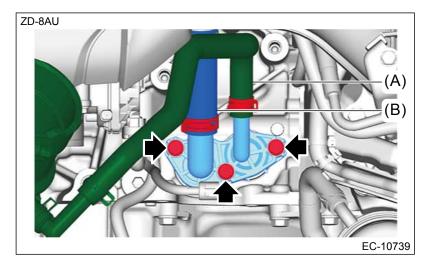
(4) Move the A/C compressor as shown in the figure.

#### Caution:

- Do not bend the pipe portion of the hose pressure discharge and the hose pressure suction.
- Be careful not to drop the A/C compressor.
- Be careful not to damage the adjacent parts with the A/C compressor.



5. Disconnect the PCV hose No. 2 (A) and water hose (B), and remove the PCV connector.



#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > PCV Connector

#### INSTALLATION

- Install a new PCV connector, and connect the water hose and PCV hose No. 2.
   Tightening torque:
  - 6.4 N·m (0.7 kgf-m, 4.7 ft-lb)
- 2. Install the A/C compressor. Ref. to AIR CONDITIONER > Compressor > INSTALLATION.
- 3. Install the air intake boot. Ref. to INTAKE (INDUCTION)(H4DO)>Air Intake Boot>INSTALLATION.
- **4.** Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.
- **5.** Fill engine coolant. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > FILLING OF ENGINE COOLANT.
- 6. Check refrigerant leaks. Ref. to AIR CONDITIONER>Refrigerant Leak Check>INSPECTION.

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > PCV Connector

#### **INSPECTION**

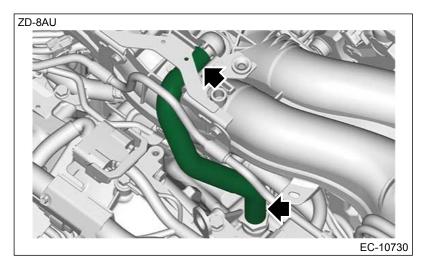
Check that the PCV connector has no deformation, cracks or other damages.
---------------------------------------------------------------------------

#### 1. PCV HOSE NO. 1

#### Caution:

Do not remove except when the PCV hose No. 1 is broken.

- 1. Remove the collector cover. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Collector Cover>REMOVAL.
- 2. Remove the PCV hose No. 1.



#### 2. PCV HOSE NO. 2

#### Caution:

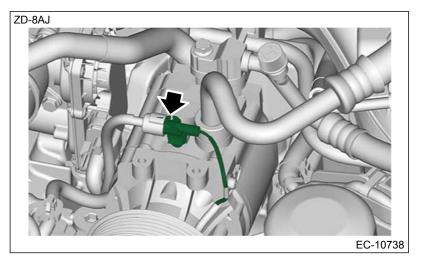
Do not remove except when the PCV hose No. 2 is broken.

- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the air intake boot. Ref. to INTAKE (INDUCTION)(H4DO)>Air Intake Boot>REMOVAL.
- **3.** Move the A/C compressor aside so that it does not interfere with the work.

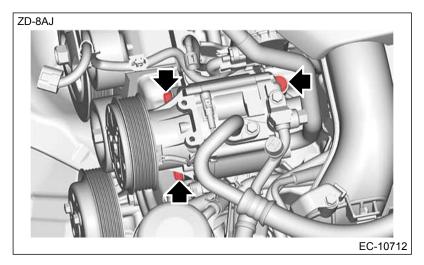
#### Note:

This procedure is required to remove the PCV hose No. 2.

- (1) Remove the V-belts. Ref. to MECHANICAL(H4DO)>V-belt>REMOVAL > V-BELT.
- (2) Disconnect the connector.



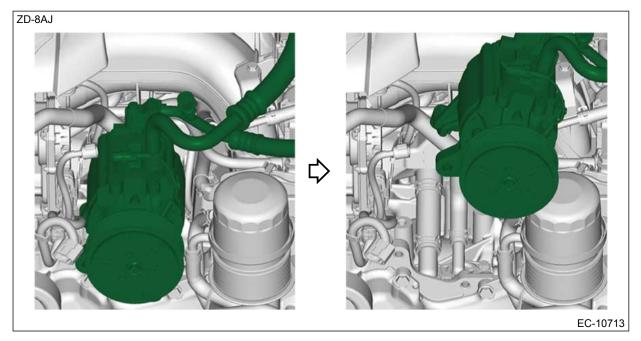
(3) Remove the bolt securing the A/C compressor.



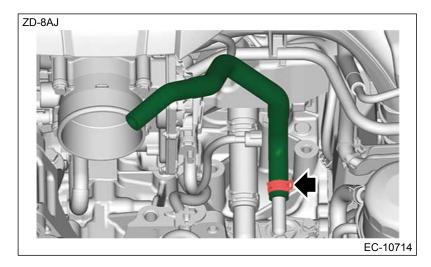
(4) Move the A/C compressor as shown in the figure.

#### Caution:

- Do not bend the pipe portion of the hose pressure discharge and the hose pressure suction.
- Be careful not to drop the A/C compressor.
- Be careful not to damage the adjacent parts with the A/C compressor.



4. Remove the PCV hose No. 2 from the PCV connector.



#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > PCV Hose

#### **INSTALLATION**

#### 1. PCV HOSE NO. 1

- 1. Connect the PCV hose No. 1 to the intake manifold assembly and the PCV valve.
- 2. Install the collector cover. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Collector Cover>INSTALLATION.

#### 2. PCV HOSE NO. 2

- 1. Connect the PCV hose No. 2 to the PCV connector.
- 2. Install the A/C compressor. Ref. to AIR CONDITIONER > Compressor > INSTALLATION.
- 3. Install the air intake boot. Ref. to INTAKE (INDUCTION)(H4DO)>Air Intake Boot>INSTALLATION.
- **4.** Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

5. Check refrigerant leaks. Ref. to AIR CONDITIONER>Refrigerant Leak Check>INSPECTION.

#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > PCV Hose

#### **INSPECTION**

Check that the PCV hose has no cracks, damage or loose part.

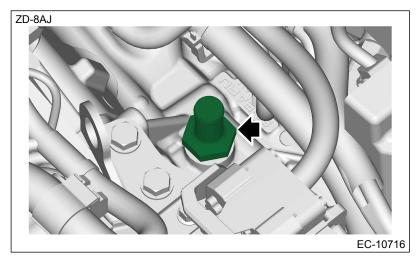
#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > PCV Valve

#### REMOVAL

#### Caution:

Do not remove unless the PCV valve is broken.

- 1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
- 2. Remove the intake manifold assembly. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Intake Manifold Assembly>REMOVAL.
- 3. Remove the PCV valve.



4. Remove liquid gasket from the PCV valve and the mating surface of the cylinder block RH.

#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > PCV Valve

#### **INSTALLATION**

**1.** Apply liquid gasket to the bolt threads of PCV valve, and install the PCV valve onto the cylinder block RH.

#### Note:

Before applying liquid gasket, degrease bolt threads of PCV valve and the mating surface of the cylinder block RH.

#### **Preparation items:**

Liquid gasket: THREE BOND 1217G (part No. K0877Y0100), THREE BOND 1217H or equivalent **Tightening torque**:

23 N·m (2.3 kgf-m, 17.0 ft-lb)

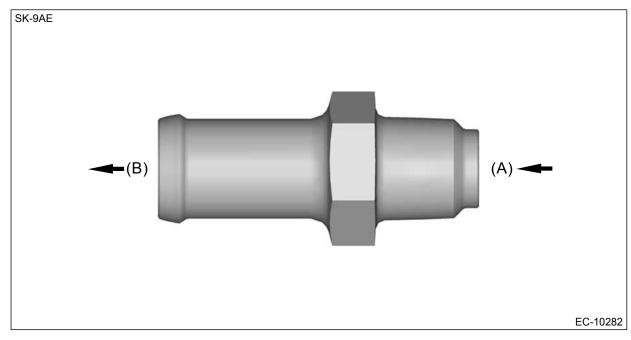
- 2. Install the intake manifold assembly. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DO)>Intake Manifold Assembly>INSTALLATION.
- 3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS > NOTE > BATTERY.

#### EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)(H4DO) > PCV Valve

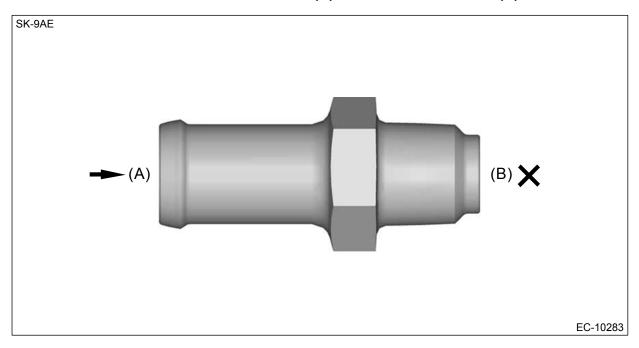
#### INSPECTION

#### 1. PCV VALVE

- 1. Check that the PCV valve has no deformation, cracks or other damages.
- 2. Check that air is discharged from (B) when air is blown into (A).



3. Check that air does not come out from (B) when air is blown into (A).



#### 2. OTHER INSPECTIONS

Check that the PCV hose has no cracks, damage or loose part.